# OE ENERGY MARKET SNAPSHOT

Western States Version – July 2008 Data

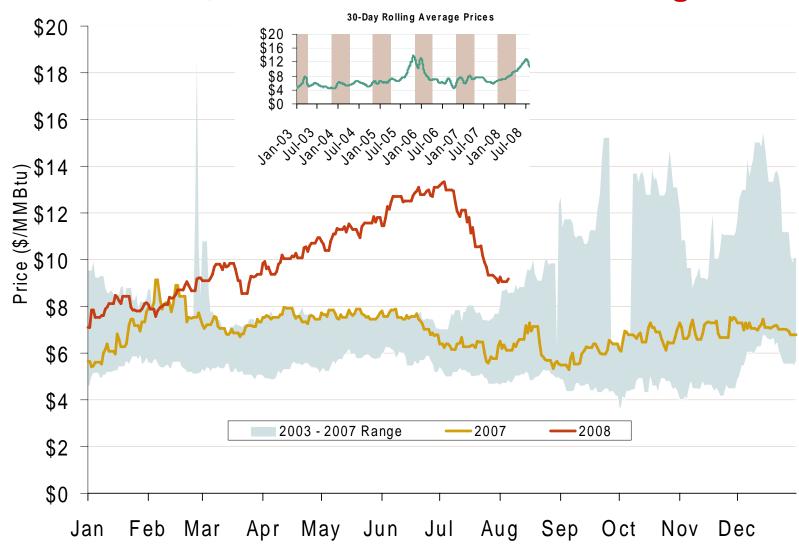
- Special Report
- Market Fundamentals
- Prices and Market Analysis

Office of Enforcement
Federal Energy Regulatory Commission
August 2008

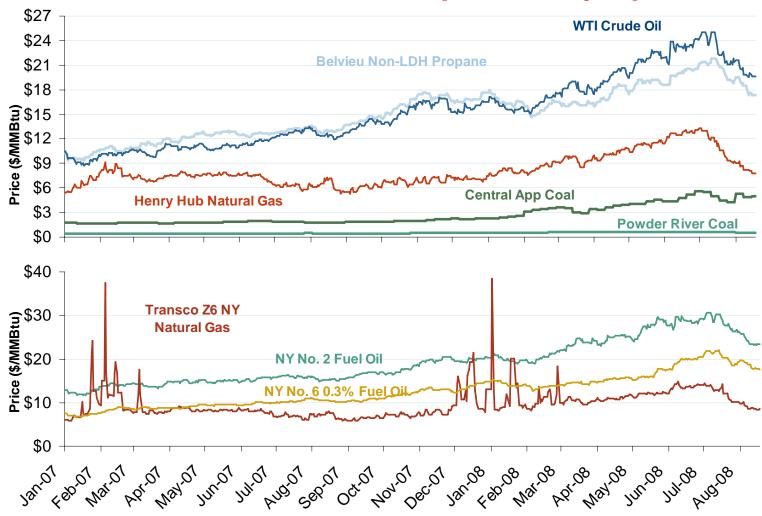
## Special Report:

Natural Gas Price Decline

## Henry Hub Natural Gas Daily Spot Prices 2007, 2008 and 2003-2007 Year Range



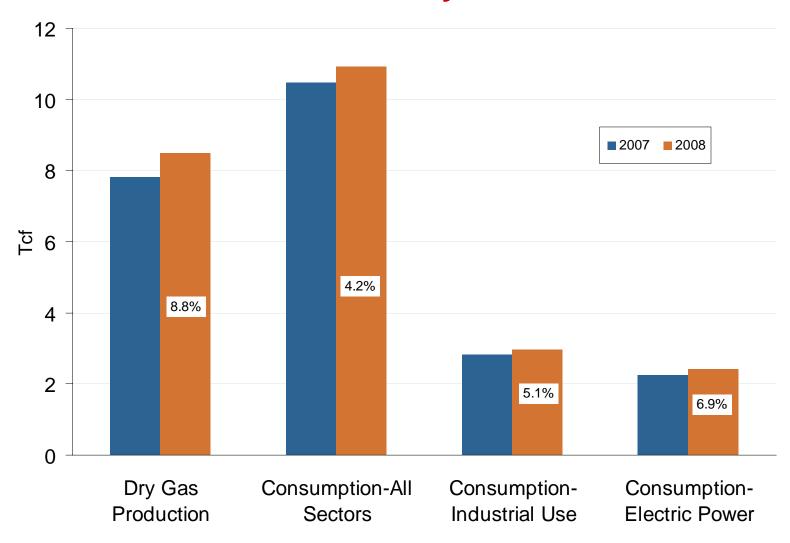
## Oil, Coal, Natural Gas and Propane Daily Spot Prices



Source: Derived from ICE and Bloomberg data.

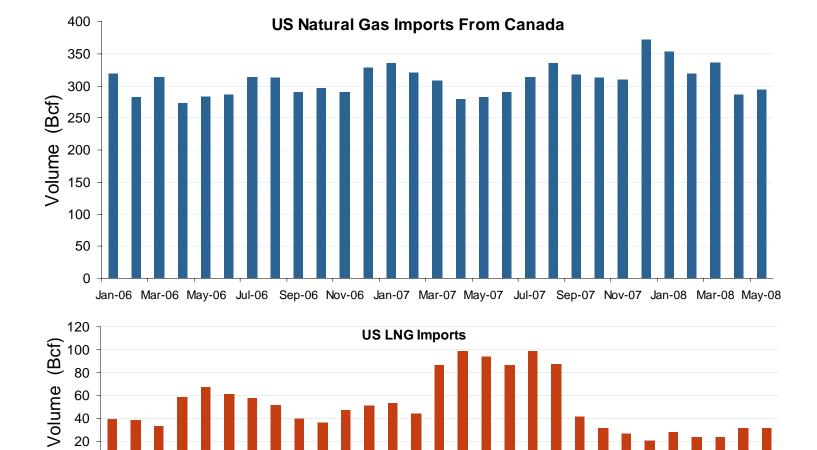
Note: Coal prices are quoted in \$/ton. Conversion factors to \$/MMBtu are based on contract specifications of 12,000 btus/pound for Central Appalachian coal and 8800 btus/pound for Powder River Basin coal.

## U.S. Natural Gas Production and Consumption Jan-May



Source: EIA Natural Gas Monthly, July 2008

### **Canadian and LNG Natural Gas Imports**



Jan-07 Mar-07 May-07

Jul-07

Sep-07 Nov-07

Jan-08

Source: EIA Natural Gas Monthly, July 2008.

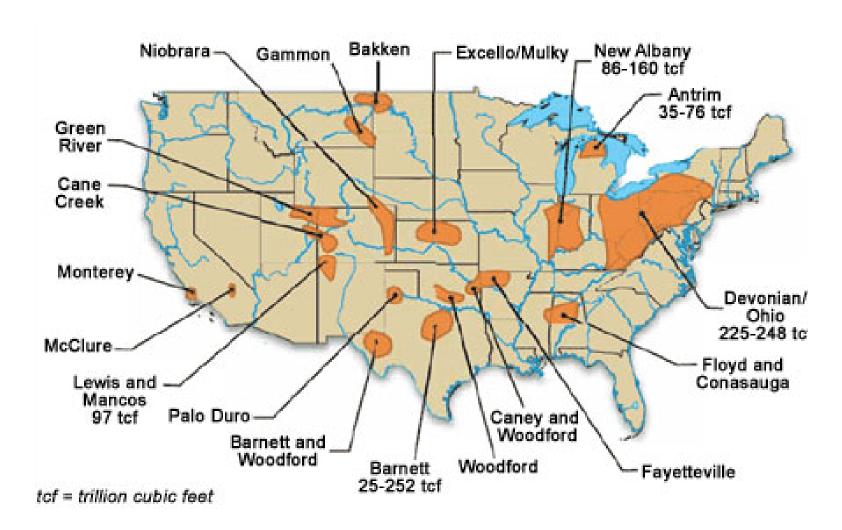
Jan-06 Mar-06 May-06

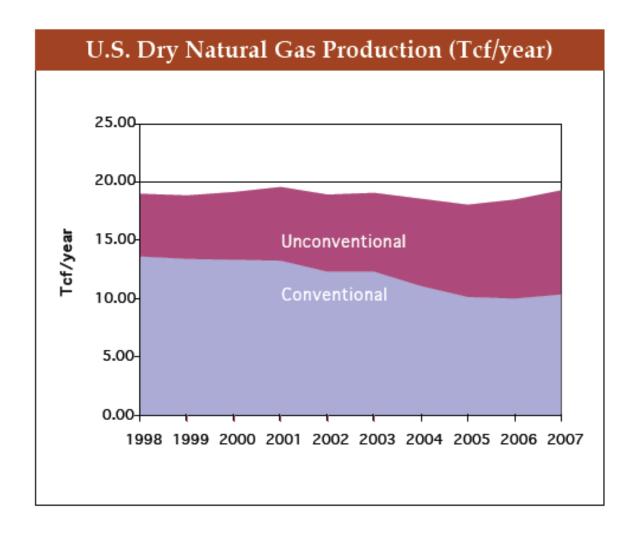
Sep-06

Jul-06

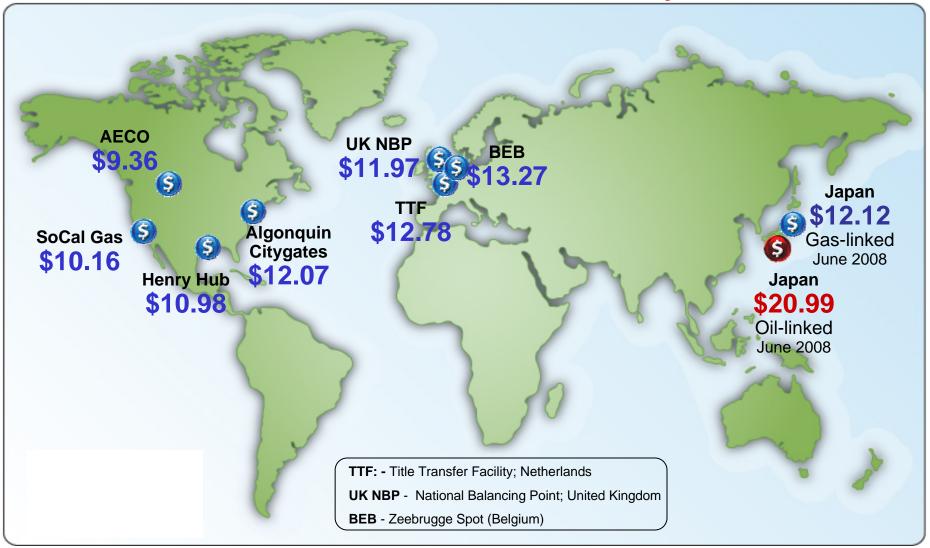
Nov-06

### **Major US Shale Basins**





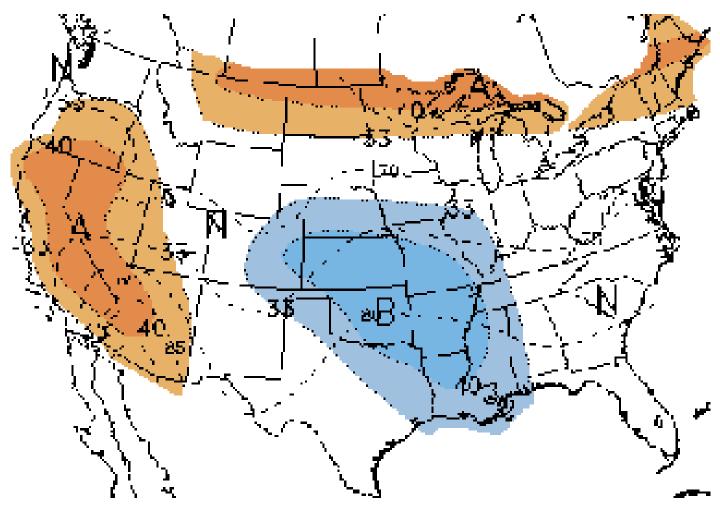
### World Natural Gas Prices for July 2008



Source: Derived from *Bloomberg, ICE, ICAP and LNG Japan Corp.* data. Prices are a monthly average of daily spot prices, except Japanese prices are monthly contract prices. All prices in \$US/MMBtu.

## Market Fundamentals

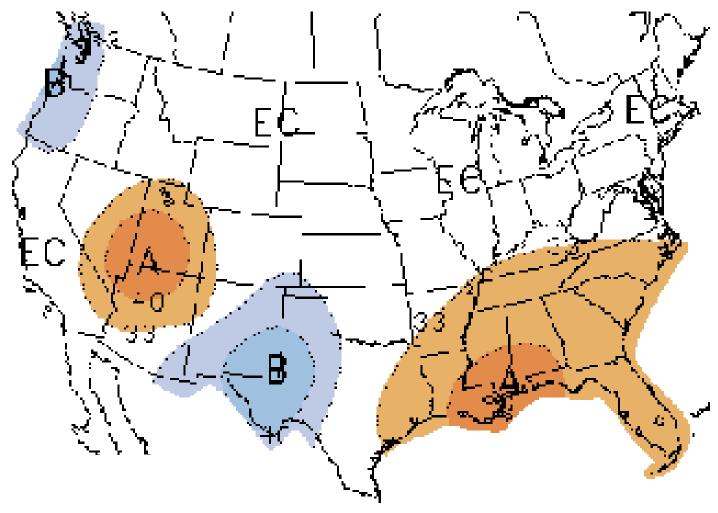
### NOAA's 8 to 14 Day Temperature Forecast Made August 12, Valid for August 20 – 26, 2008



Note: "A" areas are above normal and "B" areas are below normal. Normal is based on the last 30 years of data.

Source: NOAA

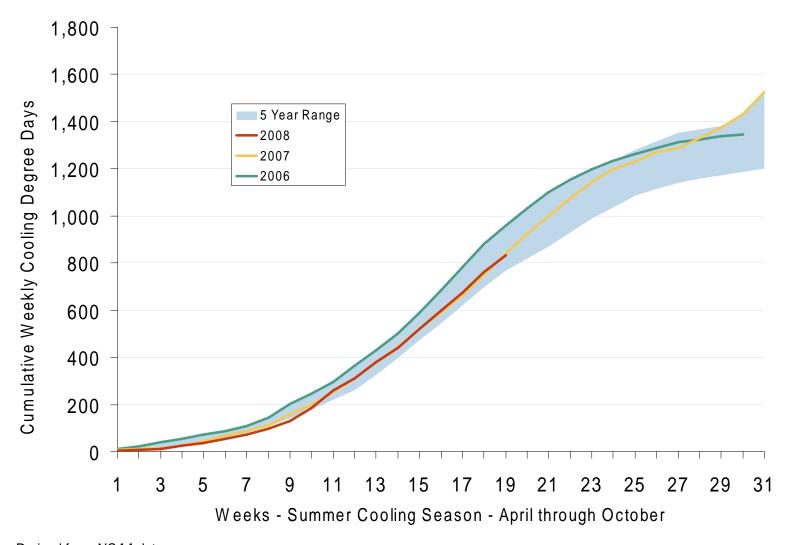
## NOAA's Monthly Temperature Forecast Made July 31, Valid for August 2008



Note: "A" areas are above normal, "B" areas are below normal and "EC" means equal chance. Normal is based on the last 30 years of data.

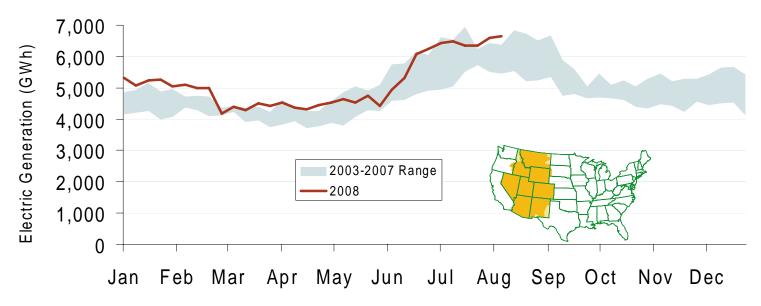
Source: NOAA Updated August 14, 2008

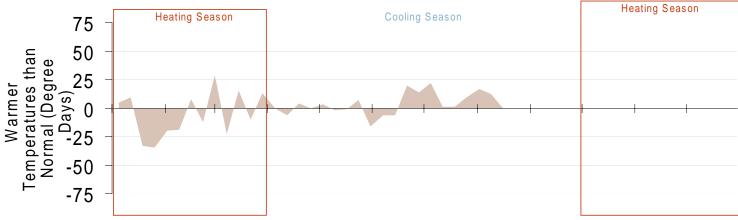
## **U. S. Summer Cumulative Cooling Degree Days**



Source: Derived from NOAA data.

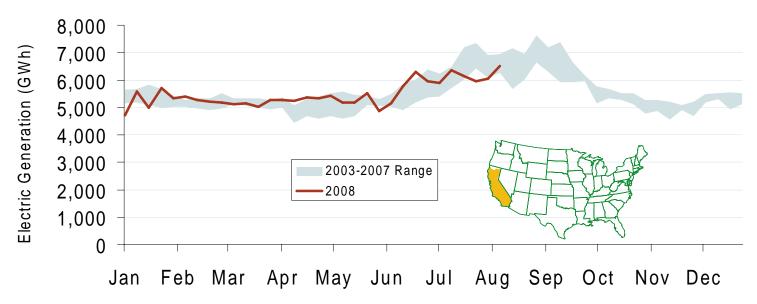
## Weekly Electric Generation Output and Temperatures Rocky Mountains Region

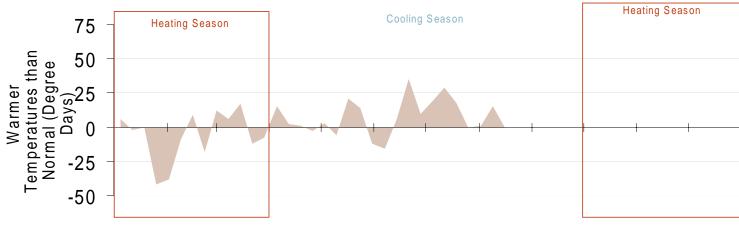




Source: Derived from *EEI* and *NOAA* data.

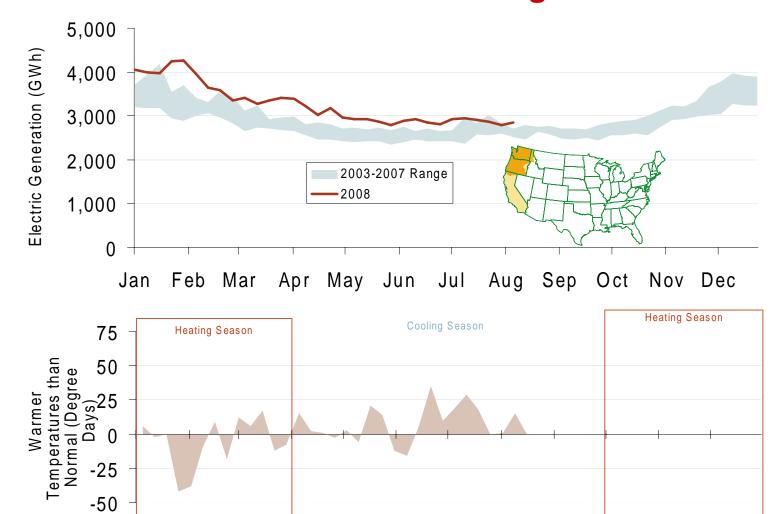
## Weekly Electric Generation Output and Temperatures California





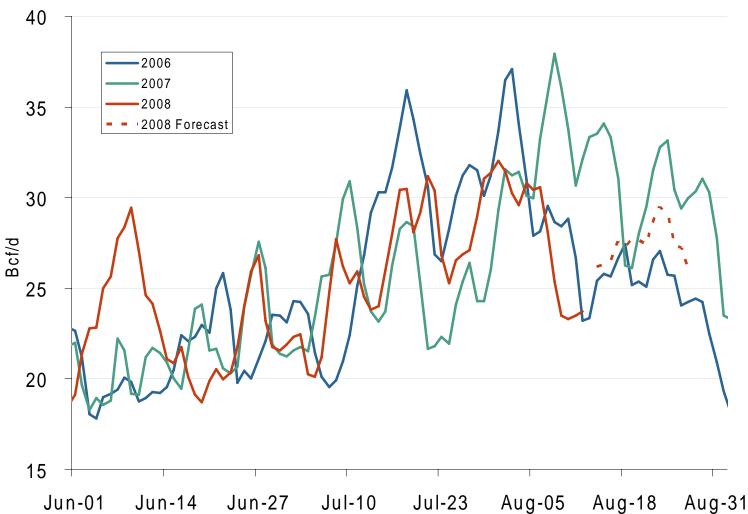
Source: Derived from EEI and NOAA data.

## Weekly Electric Generation Output and Temperatures Pacific Northwest Region



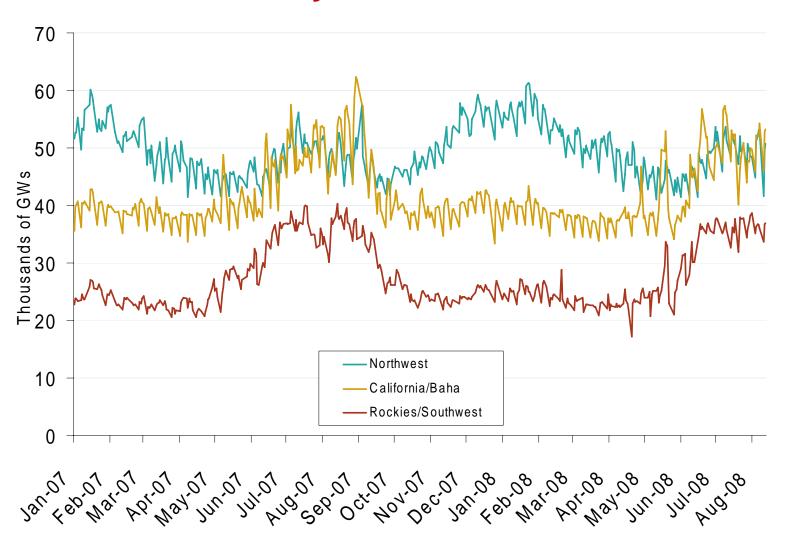
Source: Derived from *EEI* and *NOAA* data.

## US Summer Scheduled and Forecast Gas Use for Power Generation



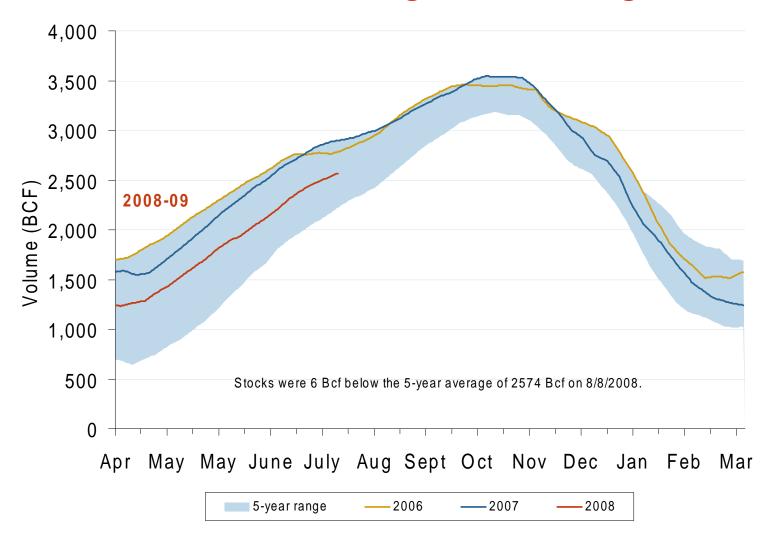
Source: Derived from Bentek Energy data.

### **Western Daily Actual Peak Demand**



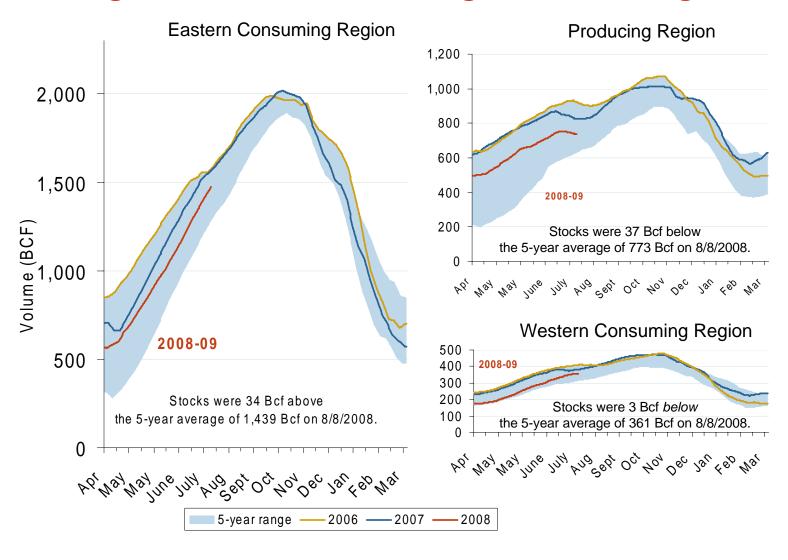
Source: Derived from WECC Daily Report data available at http://wecc.biz. Data shown is generally Sunday through Thursday due to limitations of daily reports.

## **Total U.S. Working Gas in Storage**



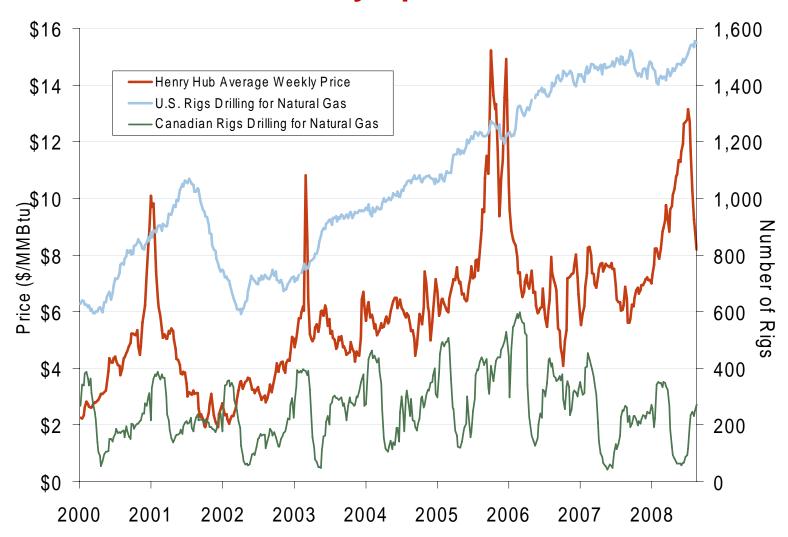
Source: Derived from EIA data.

## Regional Totals of Working Gas in Storage



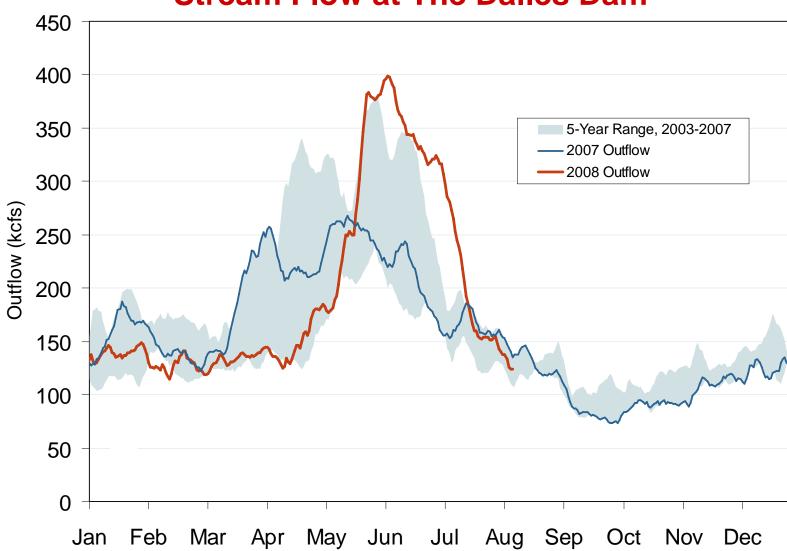
Source: Derived from EIA data.

## U.S. and Canadian Natural Gas Drilling Rig Count and Daily Spot Prices



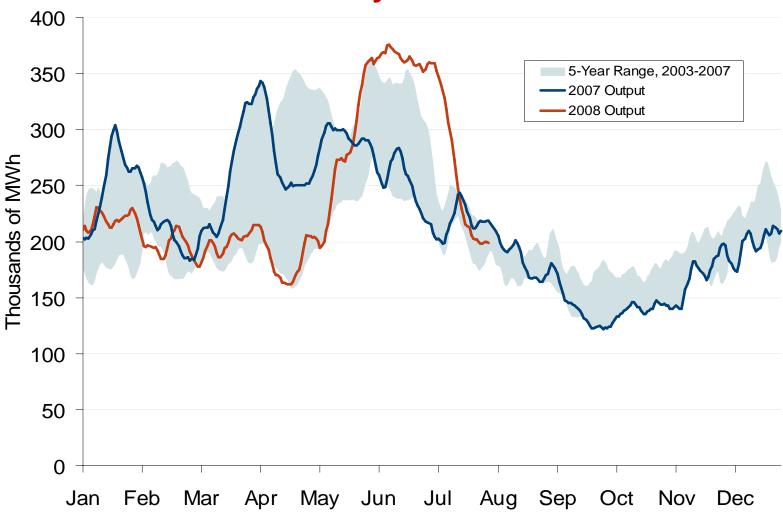
Source: Derived from Platts and Baker Hughes data.





Source: Derived from *USACE* data. Trend lines are 7-day moving averages.

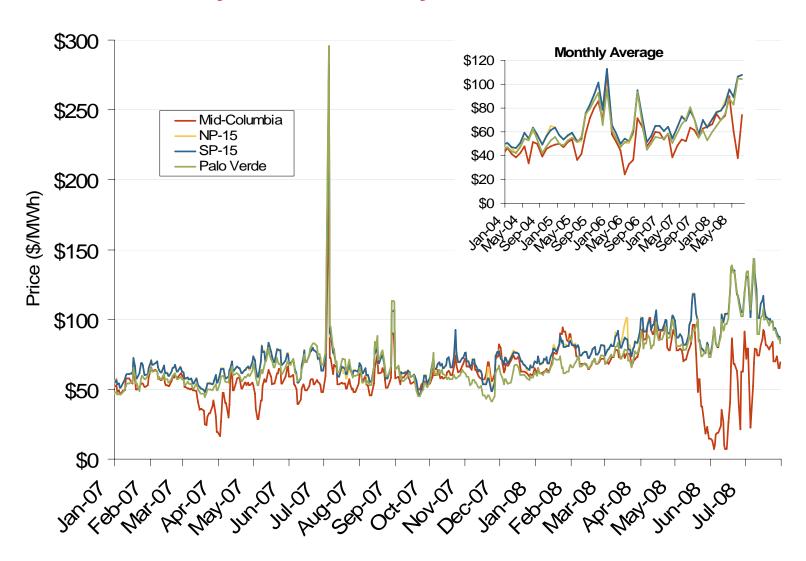
## **Pacific Northwest Hydroelectric Production**



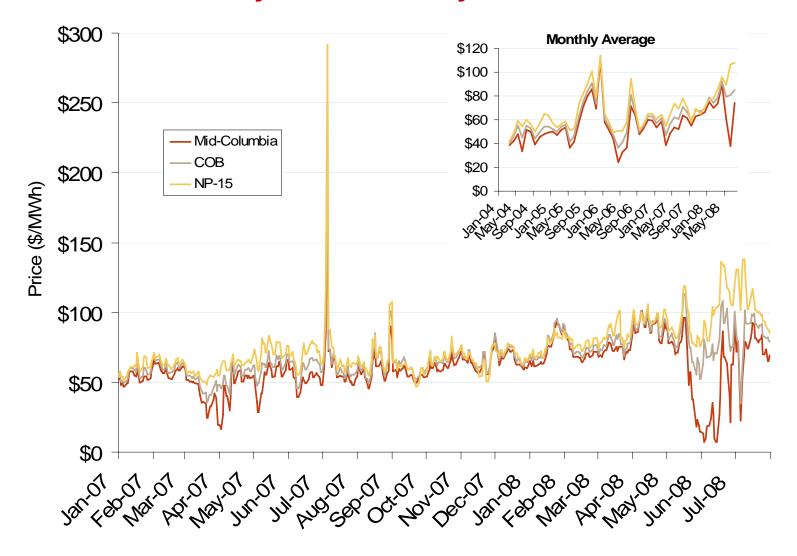
Source: Derived from USACE data reflecting the output of the 24 largest facilities. Trend lines are 7-day moving averages.

## Prices and Market Analysis

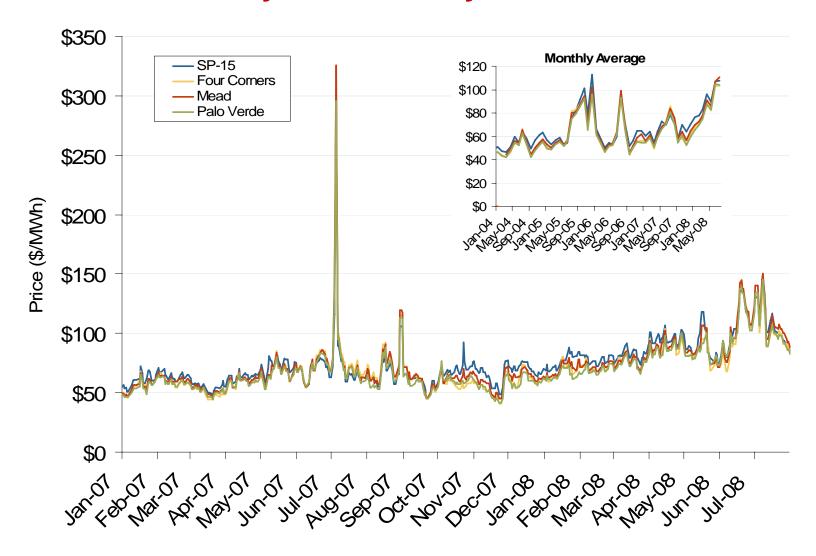
### Western Daily Bilateral Day-Ahead On-Peak Prices



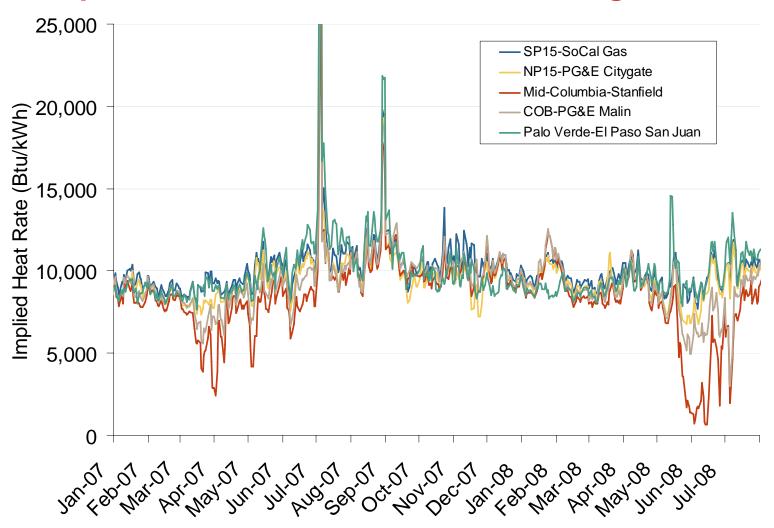
### Northwestern Daily Bilateral Day-Ahead On-Peak Prices



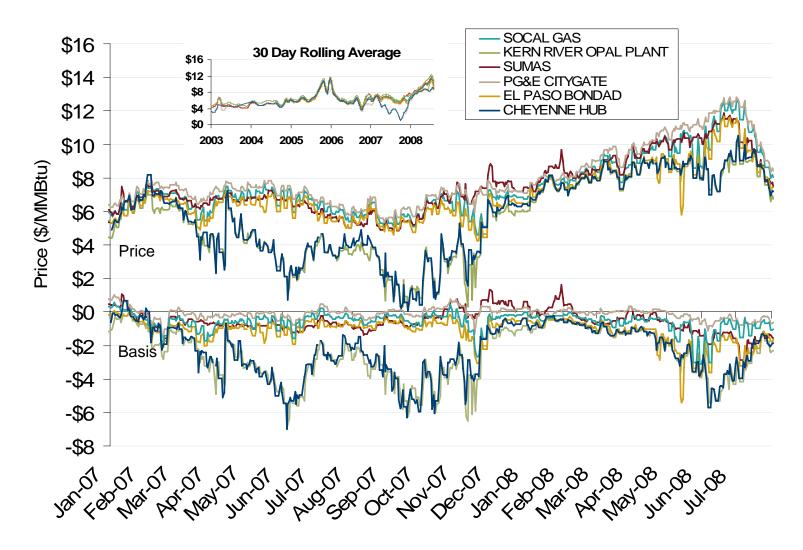
### Southwestern Daily Bilateral Day-Ahead On-Peak Prices



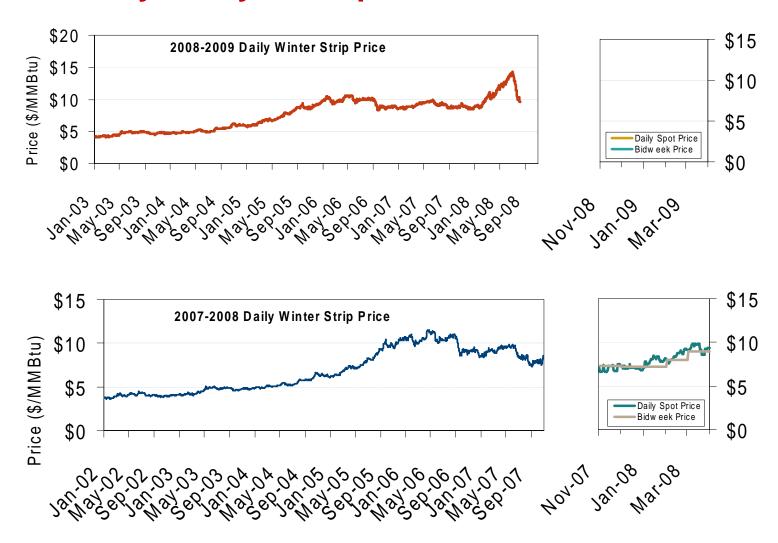
## **Implied Heat Rates at Western Trading Points**



### Western Day-Ahead Hub Spot Prices and Basis

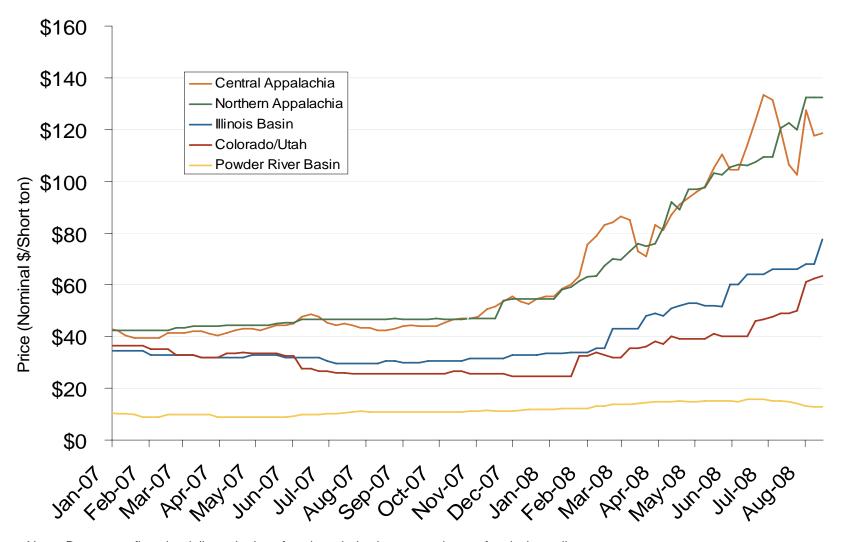


## Natural Gas Winter Futures Strip and Daily Henry Hub Spot and Bidweek Prices



Source: Derived from *Platts* and *Nymex* data.

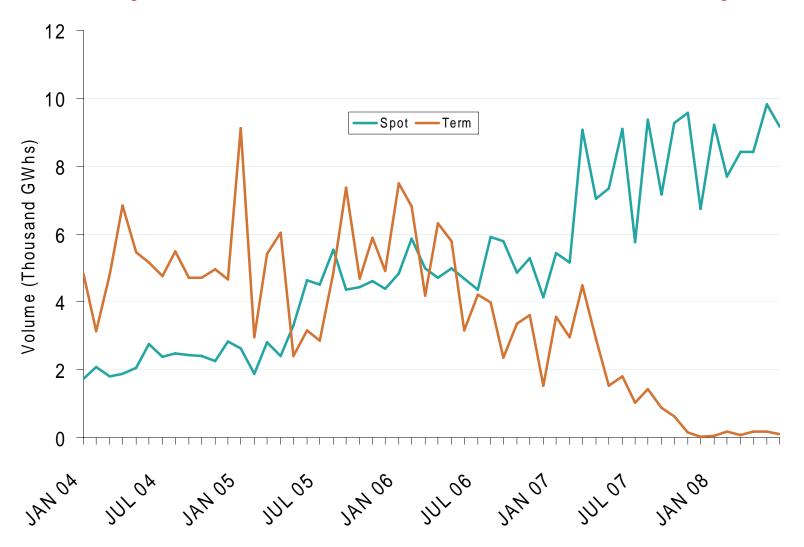
### **Regional Coal Spot Prices**



Note: Does not reflect the delivered price of coal; excludes incremental cost of emissions allowances.

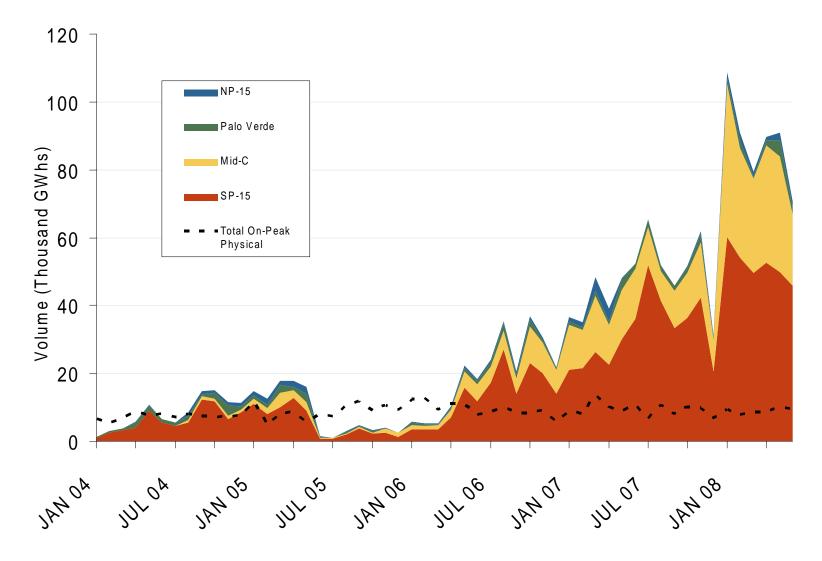
Source: Derived from *Bloomberg* data.

### Western Physical Power Volumes Traded on ICE by Month



Source: Derived from ICE data.

### Western Financial On-Peak Products Traded on ICE by Hub



Source: Derived from ICE data.

Updated August 14, 2008